Optical encoder troubleshooting checklist

Applies to All Trendsetter® 4/8 page devices with Creo optical (glass) encoders.

Background This checklist is designed to help Creo service identify the device symptoms when an encoder problem is suspected. This checklist should be used to prevent unnecessary requests for shaft encoder upgrades on legacy Trendsetter devices.

Tools and parts

- Encoder lens cleaning kit (04-0012)
- Procedure for aligning the encoder http://techplanet.creo.com/idoc/73/0106A/M/73-0106A-M-PR01.pdf
- Anti-reflective decals for the drum plugs (74-3236) See FCO C961 at http://techplanet.creo.com/output/computer_to_plate/trendsetter_3244/content/ecos/fco_c961.htm
- Scope (Tektronics® TDS210 or equivalent)

Checklist

❑ Visually inspect the encoder disk using a flashlight:

Look for mechanical damage to the chromium tick marks on the disk and debris that may be interfering with the encoder's optical signals.

If the disk is damaged, escalate this call to the response centre.

❑ Remove water and oil soluble debris that may be on the glass:

Clean the encoder glass disk using water and a lint free cloth first.
Make sure that you clean the disk in a radial direction and turn to a fresh section of the cloth frequently

Then clean the encoder glass disk using Isopropyl Alcohol and a lint free cloth making sure that you clean the disk in a radial direction and turn to a fresh section of the cloth frequently.

Clean the disk using the Luminex cleaning cloth (84-0005) from the Encoder Lens cleaning kit.

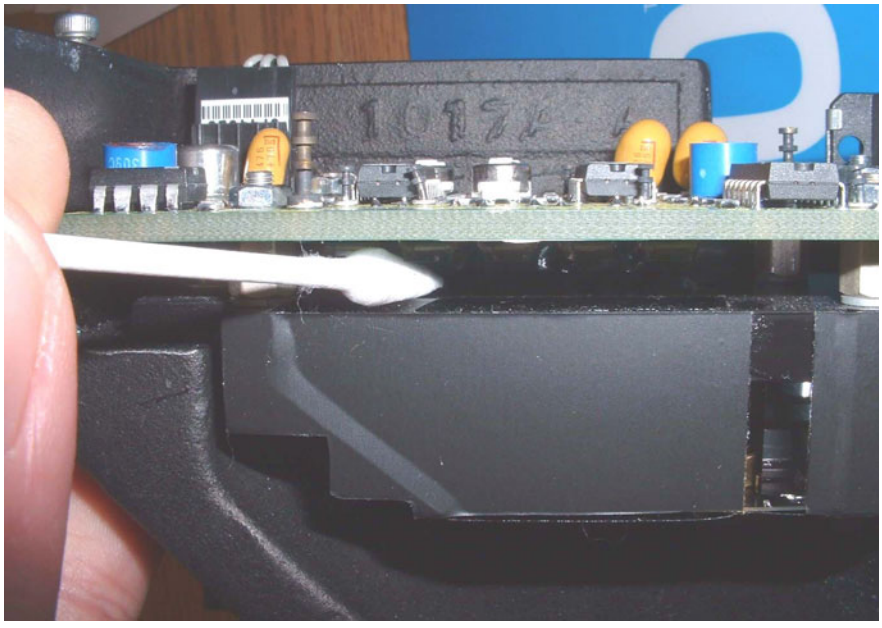
❑ If the site has had multiple calls to clean the encoder disk or thermal head lens and the device does not have a UDRC, install a UDRC. The order form for the UDRC is at: http://techplanet.creo.com/output/heads/debris_removal/content/docs/agile/750-00025A-AUDRC-BP.doc

❑ Remove the encoder block assembly from the engine casting by removing the four screws that attach the encoder block.

- ❑ Clean the two windows on the glass prism. See photos below:

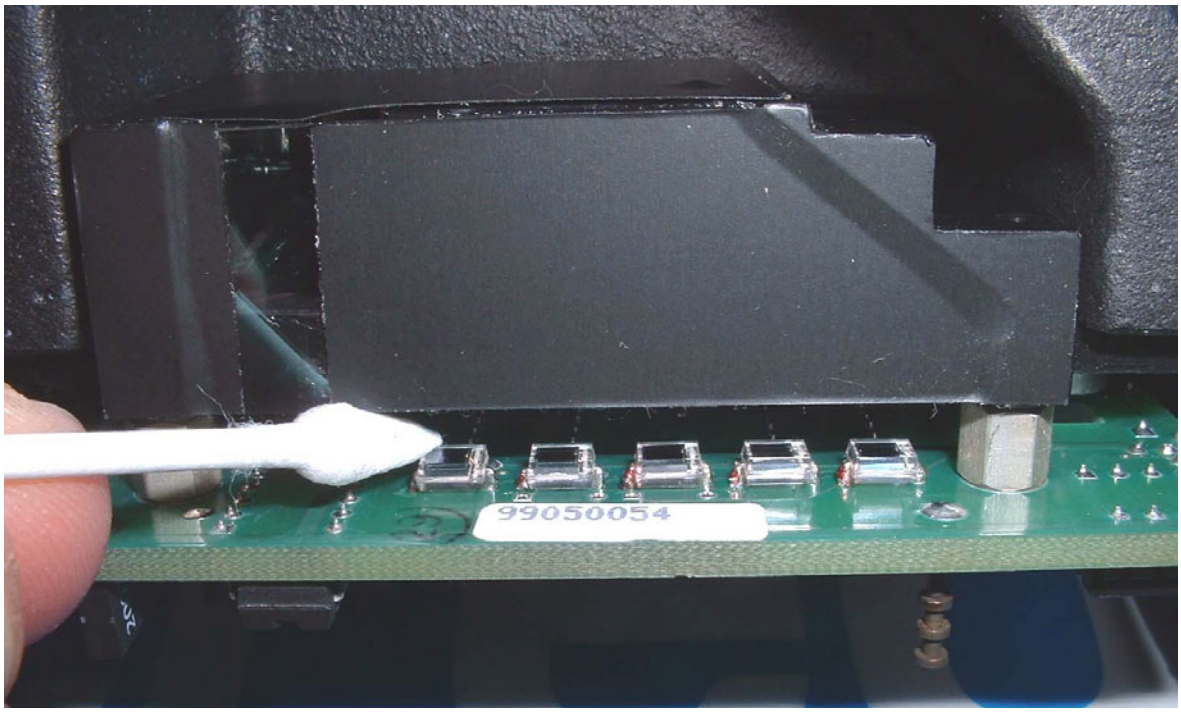


Window that faces the encoder disk



Window above the encoder pickups

- ❑ Clean the encoder signal pickup points as shown in the photo below.



- ❑ While you have the encoder block out, check to see if FCO C961 has been installed.
  If FCO C961 has not been installed, install it before remounting the encoder block.

  When reinstalling the encoder block assembly, make sure to push the block forward and to the left before tightening the mounting screws. For details on this procedure, see http://techplanet.creo.com/output/computer_to_plate/trendsetter_3244/content/ecos/fco_c961.htm
- ❑ Confirm the voltage levels of PS1.
  5 V +/- 0.2 V
  12 V +/- 0.6 V
  -12 V +/- 0.6 V
  If they are out of spec, replace PS1.
- ❑ Confirm the condition and alignment of the encoder using an oscilloscope.
  See the procedure at: http://techplanet.creo.com/idoc/73/0106A/M/73-0106A-M-PR01.pdf
- ❑ Replace the encoder cable to the backplane.
- ❑ Replace the backplane.

- ❑ If you have completed all of the checks above, contact your local response centre and request an escalation for a shaft encoder upgrade. Provide the Service Process number that documents the completion of this checklist.

See also	Encoder cleaning procedure at http://techplanet.creo.com/output/computer_to_plate/vlf_trendsetter/content/docs/agile/73-3289A-C-PR01.pdf
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